AMENDMENTS TO CLAIMS

1 (original). A method for correlating two signals, said method comprising the steps of:

digitizing the signals if they are not already in digital form;

applying the signals to an exclusive-NOR gate;

counting the number of logic ones from the exclusive-NOR gate in a first counter;

incrementing a second counter when the count is above a first threshold;

decrementing the second counter when the count is below a second threshold; and

periodically resetting the first counter.

2 (original). The method as set forth in claim 1 and further comprising the step of:

producing a signal indicative of correlation when the count in the second counter exceeds a third threshold.

3 (original). A method for detecting a shadow in a digital signal, said method comprising the steps of:

delaying the digital signal to produce a delayed signal;

applying the digital signal and the delayed signal to an exclusive-NOR gate;

counting the number of logic ones from the exclusive-NOR gate in a first counter;

incrementing a second counter when the count is above a first threshold;

decrementing the second counter when the count is below a second threshold; and

periodically resetting the first counter.

4 (original). The method as set forth in claim 3, wherein said delaying step is preceded by the step of:

digitizing an audio signal to produce the digital signal.

5 (original). The method as set forth in claim 4 wherein said digitizing step is preceded by the step of:

filtering the audio signal in a band pass filter.

6 (original). In a telephone, an improved correlator for detecting a shadow signal on the line input of said telephone, said correlator comprising :

a delay line having an input coupled to said line input and at least one output;

an exclusive-NOR circuit having a first input coupled to the input of said delay line, a second input coupled to an output of said delay line, and an output;

a first counter coupled to the output of said exclusive–NOR circuit;

an up-down counter;

a first comparator for incrementing said up-down counter when the count in said first counter is above a first threshold;

a second comparator for decrementing said up-down counter when the count in said first counter is below a second threshold;

a third comparator for producing an indication of correlation when the count in said up-down counter exceeds a third threshold.

7 (original). The telephone as set forth in claim 6 and further comprising:

a band pass filter having an output coupled to the input of said delay line.

8, 9 (Canceled)